

**Claims**

1. Device for supplying articles provided with a head and a stick, such as lollipops, to a further treatment station, such as a packaging machine, comprising:

5                   a supply station for the articles in a disorderly flow,  
a discharge station for discharge of the articles in an orderly flow,  
a distribution disc connecting to the supply station and the discharge station, which distribution disc is rotatable in a direction of rotation and has a series of holes at its circumference for accommodation of the heads of the articles, wherein the upper side of the distribution disc comprises slits for  
10                   accommodation of the sticks, which slits extend from the holes to the outer edge of the distribution disc and wherein the slits comprise a bottom and edges extending from the bottom up and situated at a downstream side and upstream side of the slit in direction of rotation, respectively, wherein the downstream edge runs at least almost in a vertical plane and at least almost  
15                   up to the upper side of the distribution disc, and the upstream edge in at least an upper portion gives way with respect to the downstream edge in upstream direction.

2. Device according to claim 1, wherein the upper side of the distribution disc at the upstream side of each slit is provided with a recess which merges  
20                   into the slit.

3. Device according to claim 2, wherein the recesses are less deep than the slits.

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4. Device according to claim 3, wherein the recesses in the upstream direction are bounded by an inclined edge portion.

5. Device according to claim 4, wherein the inclined edge portion at the side of the recess facing away from the slit at least almost connects to the upper side of the distribution disc.

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6. Device according to claim 4 or 5, wherein the inclined edge portion also slopes towards the hole.

10 7. Device according to claim 6, wherein a generating line of the inclined edge portion is oriented to the centre of the hole.

8. Device according to claim 7, wherein the generating line comprises a convex curve, as considered from the upper side of the distribution disc.

15 9. Device according to claim 4-8, wherein a cross-section of the inclined edge portion in direction almost tangential to the distribution disc comprises a concave curve, as considered from the upper side of the distribution disc.

20 10. Device according to any one of the preceding claims, wherein the slits are shifted parallel over a distance  $s$  with respect to a radial line through the centre of the corresponding holes and/or a radial line through the centre of the distribution disc.

25 11. Device according to any one of the preceding claims, wherein the slits are placed at an angle  $\beta$  to a radial line of the distribution disc.

30 12. Device according to any one of the preceding claims, wherein the opening of the slits at the outer edge of the distribution disc is situated shifted in downstream direction with respect to an axial line of the distribution disc which runs through the centre of the corresponding holes.

13. Device for supplying articles provided with a head and a stick, such as

lollipops, to a further treatment station, such as a packaging machine, comprising:

- 5 a supply station for the articles in a disorderly flow,
- a discharge station for discharge of the articles in an orderly flow,

10 a distribution disc connecting to the supply station and the discharge station, which distribution disc is rotatable in a direction of rotation and has a series of holes at its circumference for accommodation of the heads of the articles, wherein the upper side of the distribution disc comprises slits for accommodation of the sticks, which slits extend from the holes to the outer edge of the distribution disc and wherein the slits comprise a bottom and edges extending from the bottom up and situated at a downstream side and upstream side of the slits in direction of rotation, respectively, wherein the at least one of the downstream edge and upstream edge of the slits in at least 15 an upper portion of the slit gives way for forming an inclined edge portion that also slopes towards the hole.

20 14. Device according to claim 13, wherein the inclined edge portion at the side of the recess facing away from the slit at least almost connects to the upper side of the distribution disc.

25 15. Device according to claim 13 or 14, wherein the generating line of the inclined edge portion is oriented to the centre of the hole.

16. Device according to claim 15, wherein the generating line comprises a convex curve, as considered from the upper side of the distribution disc.

30 17. Device according to claim 13, 14, 15 or 16, wherein a cross-section of the inclined edge portion in a direction almost tangential to the distribution disc comprises a concave curve, as considered from the upper side of the distribution disc.

18. Device for supplying articles provided with a head and a stick, such as lollipops, to a further treatment station, such as a packaging machine, comprising:

- 5 a supply station for the articles in a disorderly flow,
- 10 a discharge station for discharge of the articles in an orderly flow,
- 15 a distribution disc connecting to the supply station and the discharge station, which distribution disc is rotatable in a direction of rotation and has a series of holes at its circumference for accommodation of the heads of the articles, wherein the upper side of the distribution disc comprises slits for accommodation of the sticks, which slits extend from the holes to the outer edge of the distribution disc, wherein the slits are shifted parallel over a distance  $s$  with respect to a radial line through the centre of the corresponding holes and/or a radial line through the centre of the distribution disc.

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19. Device for supplying articles provided with a head and a stick, such as lollipops, to a further treatment station, such as a packaging machine, comprising:

- 20 a supply station for the articles in a disorderly flow,
- 25 a discharge station for discharge of the articles in an orderly flow,
- 30 a distribution disc connecting to the supply station and the discharge station, which distribution disc is rotatable in a direction of rotation and has a series of holes at its circumference for accommodation of the heads of the articles, wherein the upper side of the distribution disc comprises slits for accommodation of the sticks, which slits extend from the holes to the outer edge of the distribution disc, wherein the slits are placed at an angle  $\beta$  to a radial line of the distribution disc.

20. Device for supplying articles provided with a head and a stick, such as lollipops, to a further treatment station, such as a packaging machine, comprising:

- 35 a supply station for the articles in a disorderly flow,

a discharge station for discharge of the articles in an orderly flow,  
a distribution disc connecting to the supply station and the discharge station, which distribution disc is rotatable in a direction of rotation and has a series of holes at its circumference for accommodation of the heads of the  
5 articles, wherein the upper side of the distribution disc comprises slits for accommodation of the sticks, which slits extend from the holes to the outer edge of the distribution disc, wherein the opening of the slits at the outer edge of the distribution disc is situated shifted in a downstream direction with respect to an axial line of the distribution disc which runs through the  
10 centre of the corresponding holes.

21. Device provided with one or more of the characterising measures described in the attached description and/or shown in the attached drawings.

15 22. Distribution disc provided with one or more of the characterising measures described in the attached description and/or shown in the attached drawings.